

Asterix Solution's

# Java for Beginner



## **Journey of thousand miles start with a single step!!**

Core Java is an integral part of any trending technologies which are being used in today's world. Logic building, understanding syntax properly, naming conventions and many of the basic concepts that are covered in the training plays an important part in any of the application development.

Course duration for this training is around 85 hours and gets completed in 21 sessions of 3 hours each.

This training program majorly focus on two things

1. Logic building.
2. Optimization of application using Core Java.

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# Day Wise Structure

## Day 1:

### Basics of Programming

- Understanding Programming Structure.
- Conditional and Logical Operators.
- Conditional Blocks

## Day 2

- Loops
- Switches
- Function

## Day 3

### Introduction to Java

- History of Java
- Paradigm Introduction(OOP vs POP)
- Why Java?
- How Java is base for two major technologies today i.e. Android Development and Big Data

### Java Declaration and Object Orientation

- Classes
- Objects
- Instances
- Difference in Objects of C++ and JAVA.

## Day 4

- Concept of JDK,JRE and JVM
- Constructors.
- Instance and Local Variables.
- JAVA Naming RULES & CONVENTIONS.
- Static Variables and Methods.
- Source File Declaration Rules.

## Day 5:

### Writing First Java Program

- Installing JDK

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- Configuring Java Variables on System
  - Writing First Java Program
  - Compilation and Execution

### In Class Assessment-1

- 10 logical programs to break the ice with Java Environment

### Day 6

#### Inheritance

- Introduction to Inheritance
- Thumb Rule 1 (with practical)
- Super keyword
- Thumb Rule 2

### Day 7

- Method Overriding
- Final keyword
- Manifest Constants

### Day 8

#### String

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- Introduction to String
- String and Memory management
- Why are Strings final?
- String Methods (with practical's)

### Day 9

- String Buffer and String Builder and Regular Expression

### In Class Assessment-2

- Practical's on String and Inheritance

### Day 10:

#### Arrays

- Introduction to Array
- 1-D Array
- Object Arrays

### Day 11

- 2-D Array
- Objects in 2-D Array

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## Day 12:

### Wrapper Class and Boxing

- Overview of Wrapper Class
- Methods of Wrapper Class
- Conversion from Wrapper to primitive and vice-versa
- Creating and Using Wrapper Classes Objects.
- Overloading in Wrapper Class

## Day 13

### Interface and Abstract Class

- Everything about interface and abstract class

### In Class Assessment-3

- Practical's on Arrays and Wrapper

## Day 14:

### Exception Handling and Packages

- Using try..catch
- Using Finally.
- Try with Resources
- Defining Exceptions.
- Hierarchy of Exception.
- Throwing our Exceptions.

## Day 15

- Understanding the concept of packages.
- Making our own package
- Understanding access specifier.
- Making our own jar file and setting in classpath.

## Day 16

### Date and Time API

- A special session just to tackle the usage of Date and Time API.

### Java I/O

- File Navigation

## Day 17

- Input Output with Disk Files
- Serialization

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## Day 18

### Threads

- Defining Threads
- Instantiating Threads.
- Thread States.
- Synchronization.
- Thread Priorities

## Day 19

### In Class Assessment-5

- Practical's on Threads and Data and Time API

## Day 20

### GENERICS & COLLECTION

- List Interface
- Set Interface.
- Map Interface.
- Query Interface.
- ArrayList
- TreeSet
- TreeMaps

## Day 21:

### GENERICS & COLLECTION(Cont)

- Sorting Collections and Arrays
- Generic Declaration
- Generic Methods
- Polymorphism and Generics
- Mixing Generic and Non Generic Collection.

### In Class Assessment-6

- Practical's on Collection API

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# Contact

## Asterix Solution

**Vashi Branch Address:** Shop No 7 & 8, Shivshankar Tower, Opposite Kadambari CHS, Sanpada East, Navi Mumbai-400 705 (Nearest Railway Station: Vashi)

**Thane Branch Address:** 202, 2nd Floor, Rajhans Annexe, Opposite Gaondevi Bus Depot, Above Rajmal Lakhichand Jewellers, Thane West, Mumbai-400602

**Contact:** 9821681514 / 7715036251

**Website:** [www.asterixsolution.com](http://www.asterixsolution.com)

**Email:** [welisten@asterixsolution.com](mailto:welisten@asterixsolution.com)